

## CR-BSI (CDC)

**From:** Nancy Moureau (nancy@piccexcellence.com)

**Sent:** Wednesday, December 2, 2009

**To:** Centers for Disease Control

**Subject:** Recommendations for Draft Guidelines for Prevention of Intravascular Catheter Related Infections

12/03/2009

To HICPAC Committee Members:

My name is Nancy Moureau, and I am a Vascular Access Specialist and PICC Team member at Greenville Memorial Hospital in Greenville SC, as well as an educator with PICC Excellence, Inc. I thank you for the opportunity to respond to the Recommendations for Prevention of Intravascular Catheter Related Infections.

### Comments regarding the draft:

1. Currently the draft guideline calls for a 2% Chlorhexidine based skin antiseptic solution to be used for central venous catheter insertion. **(VI. Catheter site care: Cutaneous antisepsis)** The Infusion Nurse's Society Standards for Care (INS), the Society for Healthcare Epidemiology of America (SHEA), and the Infectious Diseases Society of America (IDSA) all have released recent guidelines that support the use of an alcoholic chlorhexidine solutions 2% CHG +70% Isopropyl alcohol [IPA]). The current draft CDC document does not call for an alcoholic CHG solution, and only makes reference to 2% CHG solution for central venous catheter and alcoholic solution alone for peripheral catheters. The specific study referenced used an aqueous solution of CHG. The synergistic effects of CHG and isopropyl alcohol are a key component to the provision of initial skin antisepsis and also persistent activity of CHG on the patient's skin. Use of an aqueous based CHG solution alone would not provide adequate initial skin antisepsis. In an effort to provide a consistent message to clinicians I would urge the HICPAC committee to make a more inclusive recommendation that is in line with the current standards of other Infection Prevention organizations and change the guidelines to read "use an alcoholic Chlorhexidine gluconate solution as the preferred agent for skin preparation with central venous and peripheral catheters during insertion and maintenance procedures." This would offer all patients the greatest benefits of a fast alcohol kill coupled with the residual action of Chlorhexidine gluconate. (see supporting references)
2. Specific to the issue of peripheral site preparation prior to insertion I ask for you to consider the addition of the recommended agent "alcoholic 2% CHG" as a consistent message for peripheral site skin prep. **(IV. Aseptic Technique during catheter insertion and care: A. Maintain aseptic technique for insertion and care of intravascular catheters)** Due to the number of peripheral IVs placed (330 Million per year according to Millennium Research Group 2008), the risk for peripheral IV infections, while low in percentages, are high in untracked volumes. As the dwell time extends beyond the persistence of alcohol alone, the guidelines for peripheral IVs should follow the other catheter guidelines as a conservative safety measure. A study comparing use of 2%

CHG/70% IPA with 70% IPA alone as a skin antiseptic in 170 elective cardiology patients showed an overall reduction of 60% in microorganisms present on peripheral intravenous catheter tips in patients in the 2% CHG/70% IPA group, compared to patients in the IPA group ( $P < 0.001$ ) (Small, et al., 2008). Additionally, the Antiseptic No Touch Technique (ANTT) (Pratta, 2007) EPIC 2 guidelines for peripheral catheter insertion are being widely adopted in the UK and include the use of skin prep with a 2% CHG/70% alcohol solution. The ANTT also supports the use of applicators for the prepping of patients for all intravenous catheters, including peripheral IVs.

The recommendation for use of CHG for insertion of peripheral intravenous catheters was changed in the new draft to isopropyl alcohol instead of alcohol +CHG, creating two standards of care for our patients. The evidence fully supports the recommendation for this guideline. Other concentrations of CHG do not have the level of evidence available for 2%, and some studies have shown that greater percentages of CHG don't increase efficacy, but may increase the risk of irritation. One standard for care is what is needed for our patients for all vascular access procedures to include all intravenous device preparations using alcoholic CHG 2%.

I would strongly urge the HICPAC committee to evaluate this request to be inclusive of all CHG containing skin antiseptics available under the formal approval of the Food and Drug Administration.

Thank you for your consideration. If you have any questions or would like clarification of any of the topics, please feel free to contact me directly.

Sincerely,

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**References:**

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